Cutting Feeds

Cutting speeds - maximum of 300 m/min (1000 fpm)

<table>
<thead>
<tr>
<th>Diameter mm</th>
<th>&lt; 50</th>
<th>50-100</th>
<th>100-150</th>
<th>150-200</th>
<th>200-250</th>
<th>250-300</th>
<th>300-400</th>
<th>400-500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter inches</td>
<td>&lt; 2&quot;</td>
<td>2-4&quot;</td>
<td>4-6&quot;</td>
<td>6-8&quot;</td>
<td>8-10&quot;</td>
<td>10-12&quot;</td>
<td>12-16&quot;</td>
<td>16-20&quot;</td>
</tr>
<tr>
<td>RPM</td>
<td>600-2000</td>
<td>500-600</td>
<td>450</td>
<td>350</td>
<td>240</td>
<td>240</td>
<td>160</td>
<td>120</td>
</tr>
</tbody>
</table>

Cutting Feeds

| Rough turning | 0.5 - 0.7 mm per revolution | 0.020° - 0.030° per revolution |
| Finish turning | 0.3 - 0.4 mm per revolution | 0.012° - 0.016° per revolution |

**Machining straight and flanged bushes in small quantities**

1. **Cut to length**  
   Allow extra length for chucking, parting and facing, usually 25 mm (1’’).  
   Cut bushing to length with a cut-off saw.

2. **Chuck with internal support disc**  
   Set the bush squarely in the chuck.  
   Use an internal support disc machined to size, made of any available material, approximately 10 to 25 mm thick (1/2” to 1”).  
   Tighten the chuck lightly - only enough to support the bush. Vesconite should not be clamped like a metal.

3. **Machine inside diameter** using a boring bar. Ensure that there is no excessive build-up of shavings inside the bush.

4. **Machine outside diameter** with an external turning tool.  
   Machine flange outside diameter if needed.  
   Face the end of the bush.

5. **Part to length** using a parting tool.  
   Ensure that bush does not fall when parted.